

WHAT IS CLAIMED IS:

1. An overload protector coupled to an electric motor comprising:
a thermally activated switching device for selectively providing current
to a mains circuit of the electric motor, said switching device including a first heater
element;

5 a second heater element thermally coupled to said switching device; and
a control circuit connected to and activating said second heater element.

2. The overload protector of Claim 1 in which said switching device
comprises a bimetallic element.

3. The overload protector of Claim 1 in which said control circuit is
remotely located relative to said motor.

4. The overload protector of Claim 1 further comprising a second heater
element thermally coupled to and electrically connected in series with said switching
device.

5. A hermetic compressor comprising:
a hermetically sealed housing;
an electric motor disposed in said housing and having a stator and rotor;
a compressor unit disposed in said housing and driven by said motor;

5 and

an overload protector comprising:
a thermally activated switching device for selectively providing
current to said electric motor, said switching device including a first heater element;

10 a second heater element thermally coupled to said switching
device; and

a control circuit connected to and activating said second heater
element.

6. The hermetic compressor of Claim 5 in which said electric motor is a
single phase electric motor.

7. The hermetic compressor of Claim 5 in which said electric motor is a
three phase electric motor.

8. The hermetic compressor of Claim 5 in which said electric motor is a permanent split capacitor motor.

9. The hermetic compressor of Claim 5 in which said electric motor is a repulsion-start, induction-run motor.

10. The hermetic compressor of Claim 5 wherein said control circuit is disposed externally of said housing.

11. The hermetic compressor of Claim 5 wherein said overload protector includes a second heater element thermally coupled to and electrically connected in series with said switching device.

12. A hermetic compressor comprising:
a hermetically sealed housing;
an electric motor disposed in said housing and having a plurality of windings;
5 a compressor unit disposed in said housing and driven by said motor;
a contactor module electrically connected to said electric motor and having a thermally activated switching device for selectively providing current to said electric motor and at least one heater element thermally coupled to said switching device; and

10 a control assembly electrically connected to said contactor module and having a heater element control circuit for activating said heater element.

13. The hermetic compressor of Claim 12 wherein said contactor module includes a relay for controlling said heater element and said heater element control circuit includes a relay controller for operating said relay.

14. The hermetic compressor of Claim 12 wherein said contactor module includes current sensors and said control assembly includes a current sensor circuit for determining current to said electric motor.

15. The hermetic compressor of Claim 12 further comprising a oil sensor, said control assembly including a low oil sensor circuit electrically connected to said oil sensor for determining a low oil condition.

16. The hermetic compressor of Claim 12 wherein said control assembly includes a microprocessor.

17. The hermetic compressor of Claim 12 wherein said control assembly includes an input/output interface circuit for transmitting information from and receiving information to said control assembly.

18. The hermetic compressor of Claim 12 wherein said control assembly is remotely located.

19. The hermetic compressor of Claim 12 wherein said contactor module includes at least one inductive pickup and said control assembly includes a winding sensor circuit electrically connected to said inductive pickup for determining the condition of said windings.